



Public Meeting
for
Unimatic Manufacturing
Corporation Superfund Site
Fairfield, New Jersey
August 10, 2016

Slide 1

AT1

Anderson, Trevor, 8/4/2016

**Unimatic Manufacturing Corporation Superfund Site
Public Meeting**

August 10, 2016 – 7:00 pm

Agenda

IntroductionNatalie Loney

Site Description and History.....Trevor Anderson

Technical DiscussionTrevor Anderson

Remedial Investigation/Risk Assessments

Feasibility Study

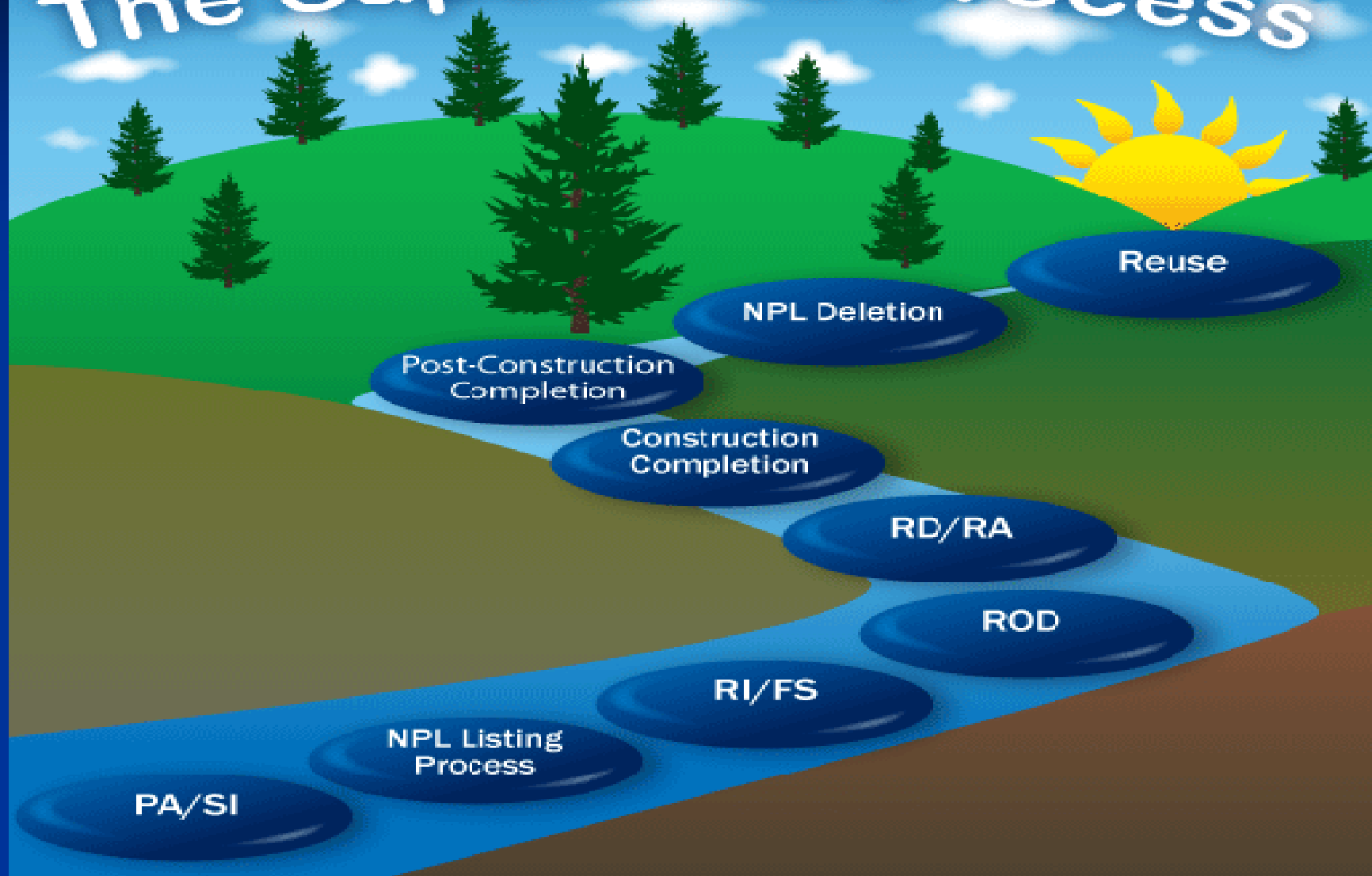
Preferred Alternative

Question & Answer

Web Site:

www.epa.gov/region02/superfund/npl/unimatic/index.html

The Superfund Process

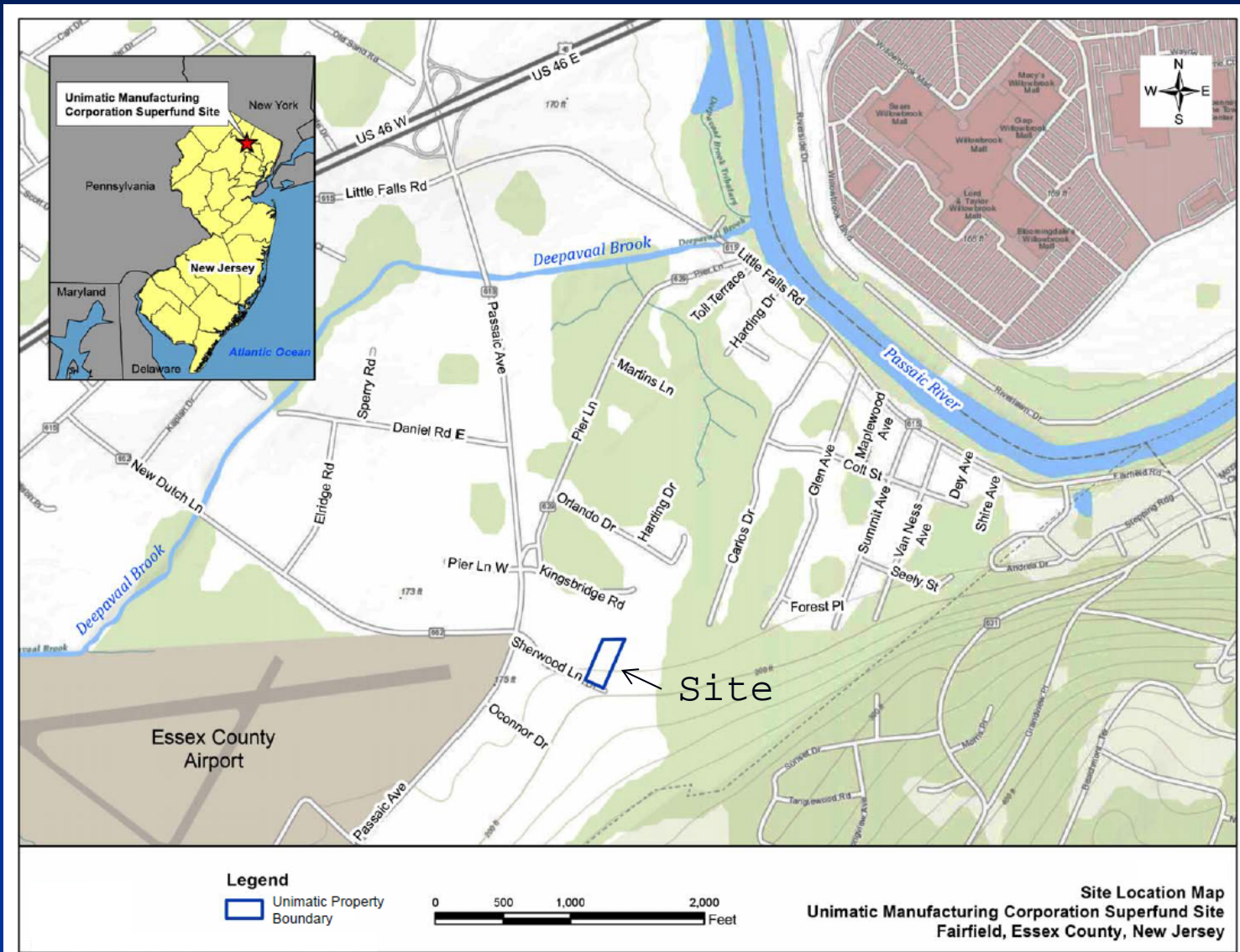


Site Description and History

Site Description

- The 1.23 acres Unimatic Manufacturing Corporation Superfund Site (the Site) is located at 25 Sherwood Lane in Fairfield, New Jersey.
- Also, three adjacent properties: 30 Sherwood Lane to the east, 21 Sherwood Lane to the west, and Jersey City Municipal Utility Authority (JCMUA) property to the north were contaminated by Unimatic activities.
- Site is located in a primarily industrial area with residential subdivisions located approximately 800 feet to the northeast.

Site Location



Current Conditions



Site History

- 1955 to 2001 – Unimatic operated a high pressure aluminum die casting facility.
 - The process involved: melting aluminum alloy at 1,200 degrees Fahrenheit (°F) and injecting molten aluminum into molds. A lubricating oil was sprayed onto the molds to prevent the aluminum from adhering to the molds.
 - The lubricating oil contained PCBs in a mixture of naphtha or mineral spirits.
 - Waste water containing PCBs was discharged into trenches within building, before being discharged to perforated pipes located on the northeastern corner of the property. Unimatic continued to discharge large volumes of contaminated wastewater until 1988.
 - The perforated pipes allow the PCBs contaminated wastewater leak into the soil, the groundwater, and the adjacent properties.

Site History (cont.)

- In 2001, Unimatic ceased all operations.
- Property sold to Cardean, LLC in 2002.
- Frameware, a tenant of Cardean, occupied the Unimatic property from 2002 – 2013.

Site History (cont.)

- Between 2001 and 2011, numerous investigation and remediation activities were conducted by the GZA Geo-Environmental, Inc., a Unimatic consultant, Under NJDEP's oversight.
- The investigations lead to the removal of above-ground and underground storage tanks, and approximately 4,800 tons of PCB-contaminated soil.
- In 2012, an EPA Removal Action Branch investigation detected high levels of PCBs within the building and in the soil. Also, the investigation confirmed that past cleanup efforts completed by Unimatic did not adequately addressed the PCB contamination in surface soils.

Site History (cont.)

- Based on the EPA's Removal Action Branch investigation, in 2013 - New Jersey Department of Health (NJDOH) issued a letter categorizing the current and future use of the site as a public health hazard and recommended the relocation of the workers.
- This letter prompted Frameware to move its operation to a new facility in July 2013.
- The site was added to the National Priorities List (NPL) on May 8, 2014.
- From June 2015 to July 2015, EPA conducted a remedial investigation of the Unimatic property and the three adjacent properties to determine the full extent of the building and soil contamination of the Site.
- At a later date, EPA plans to conduct a comprehensive groundwater, surface water and sediment investigation of the Site.

Technical Discussion Remedial Investigation/ Risk Assessments

Remedial Investigation

■ Soil Investigation

- Phase 1 - Collection of 447 soil samples from 75 soil boring locations for analysis of VOCs, SVOCs, metals, pesticides, PCBs (Aroclors), PCB congeners, and dioxin/furans
- Phase 2 - Collection of 66 soil samples from 6 soil boring locations on the 30 Sherwood Lane property for PCB analysis

■ Limited Groundwater Investigation

- Collection of groundwater samples from 11 onsite monitoring wells for analysis of VOCs, SVOCs, PCBs, pesticides, metals, and dioxins/furans

Remedial Investigation (cont.)

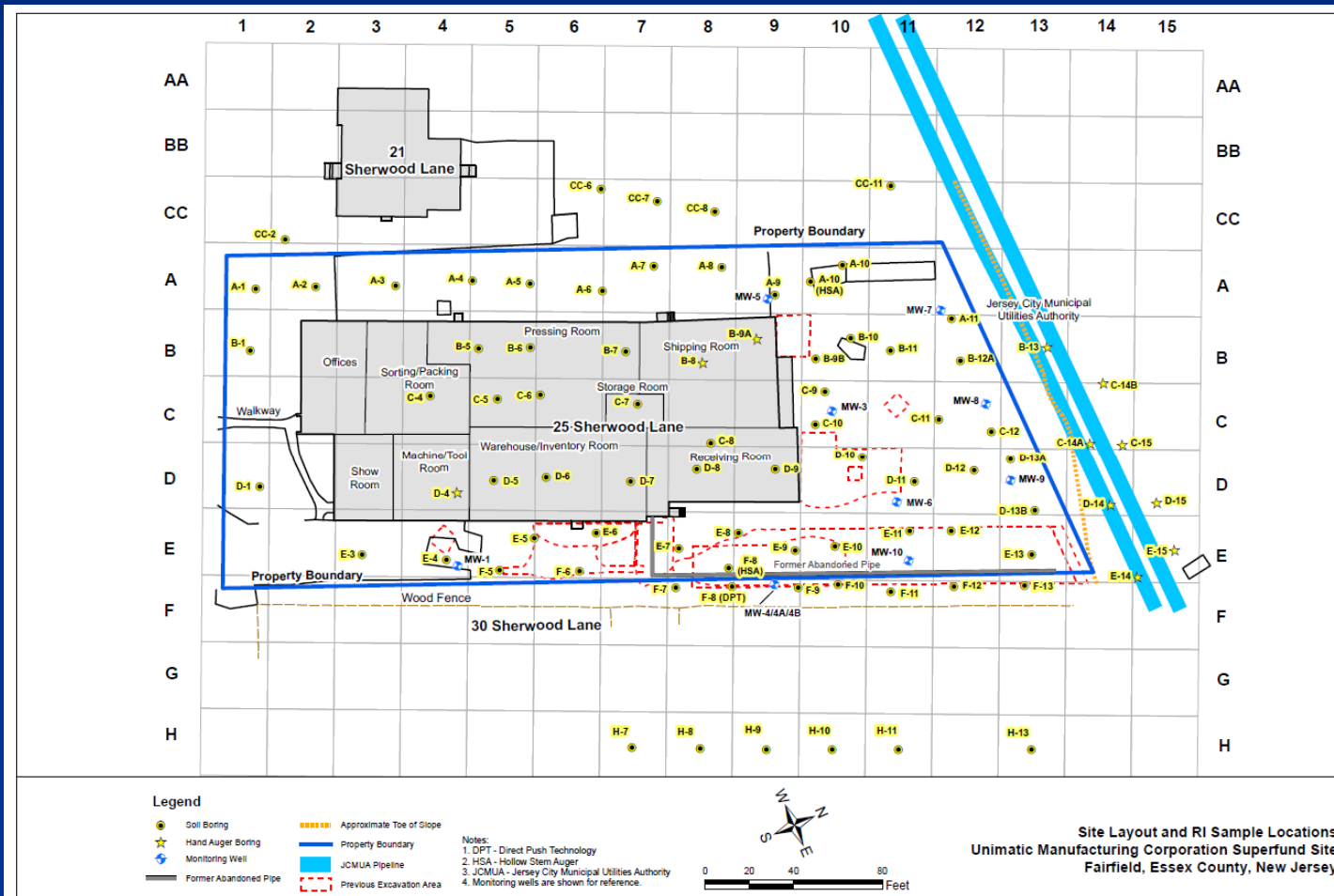
■ Building Investigation

- Collection of 16 concrete floor core samples for PCB analysis
- Collection of 12 wipe samples from various equipment surfaces for
- PCB analysis
- Completion of a hazardous building materials survey

■ Human Health Risk Assessment/Ecological Characterization of the Site

- To determine if the soil contamination poses a threat to human health and the environment

RI Soil Boring and Monitoring Well Locations



RI Results

- Widespread presence of PCBs and pesticides at the site.
- PCBs were detected in the Unimatic building floors and walls, soil beneath the Unimatic building and soil on the Unimatic property.
- PCBs contaminated soil was also detected at the JCMUA property, and at 21 and 30 Sherwood Lane.
- Pesticides were detected mostly in the soil beneath the Unimatic building and on the northeastern side of the building and are co-located with PCBs.
- PCBs (Aroclor 1248) detected in all groundwater samples except the most upgradient well; highest concentrations at the MW-4 cluster

Human Health Risk Assessment

- Soil - Risks for current and future workers are greater than EPA's target cancer risk range, primarily due to Aroclor 1248, although pesticides including aldrin, dieldrin, heptachlor and heptachlor epoxide contribute to risks as well.
- Building - Current and future workers could be exposed to PCB vapor inside the building.

Ecological Risk Assessment

- Comparisons of maximum detected concentrations of chemicals in surface soil to conservative ecological screening levels indicate potential ecological risk.
- Ecological reconnaissance conducted at the site concluded that the site has limited vegetation and wildlife and little to no viable habitat to support ecological receptors and the site is not managed for ecological use.
- Findings indicate that ecological risks at the site are negligible.

Technical Discussion Feasibility Study

Media of Concern-Soils

- This Feasibility Study focused on addressing contaminated soils and the Unimatic building at the site. (Note: Groundwater and sediments in offsite tributaries and Deepavaal Brook will be addressed in a separate operable unit.)
- Elevated concentrations (>500 mg/kg) of PCBs in some locations means the soil is considered a principal threat waste; i.e., source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained, or would present a significant risk to human health or the environment should exposure occur.

Contaminants of Concern(COC)

- Based on RI results, risk assessments and both State and Federal promulgated standards, the contaminants of concern are:
 - PCBs
 - pesticides

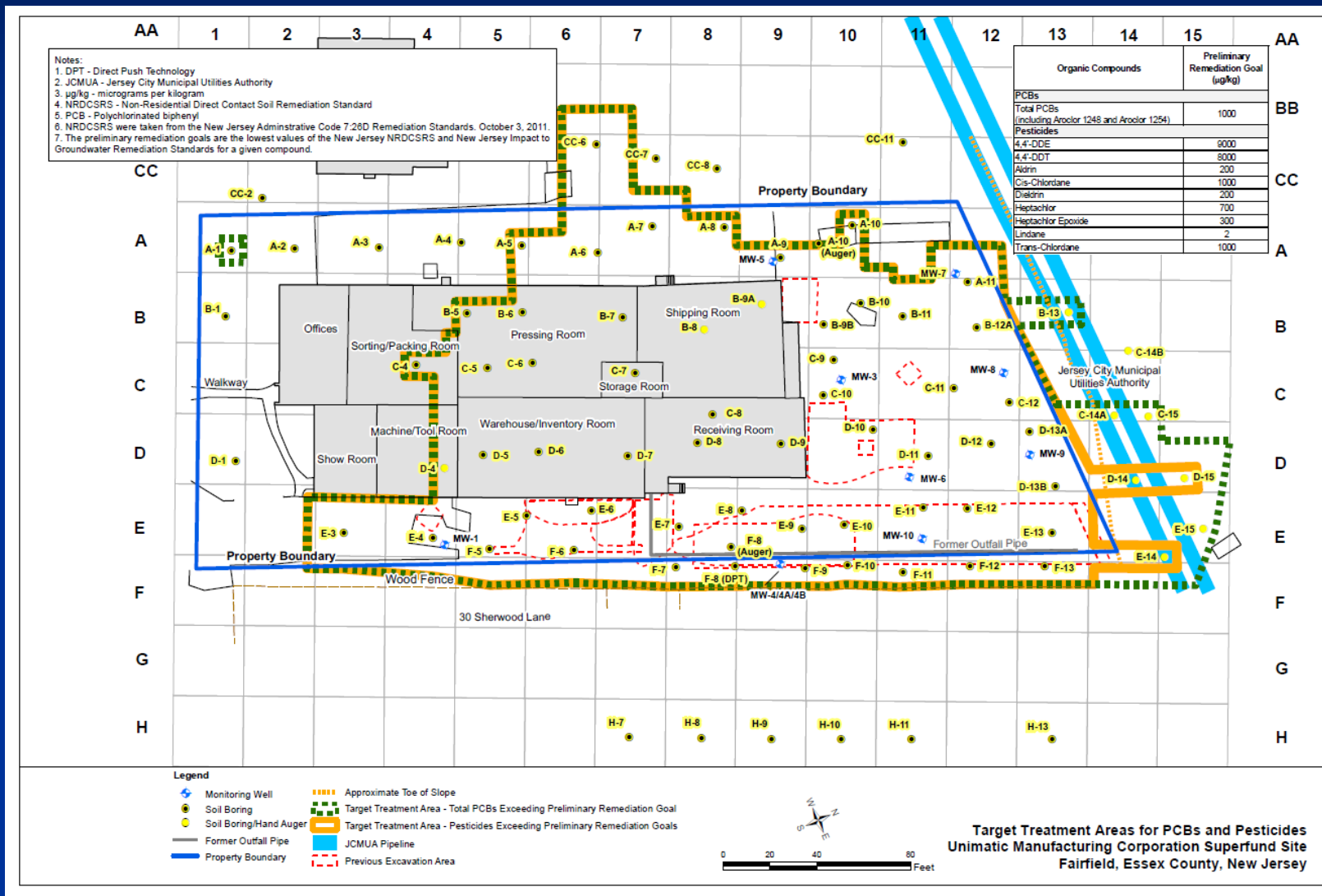
Remedial Action Objectives

- Reduce or eliminate human exposure via inhalation, incidental ingestion, and dermal absorption to contamination present within the site (Unimatic Property) building.
- Reduce or eliminate the human exposure threat via inhalation, incidental ingestion, and dermal adsorption to contaminated site soils to levels protective of current land and anticipated future use.
- Prevent/minimize the migration of site contaminants off site through surface runoff and storm sewer discharge.
- Prevent/minimize the migration of contamination in soil to groundwater.

Preliminary Remediation Goals (PRGs)

- By using the COCs and both State and Federal promulgated standards, EPA developed the Preliminary Remedial Goals (PRGs) for cleaning up the soil contamination.
- For this Site, EPA plans to clean up the soil contamination to meet NJDEP's industrial soil cleanup standards of 1 parts per million (ppm) for PCBs.
- Since the pesticide and other contaminants are co-located with PCBs, addressing the PCBs contamination will also address the other contaminants found at the site.

Area Requiring Remediation



Remedial Alternatives

Common Elements for Remedial Alternatives

- Building Demolition and Offsite Disposal of Debris
 - Materials would be segregated into piles of different waste types prior to disposal.
- Remove soil above PRGs and backfill the area within JCMUA Pipeline Easement, and 21 and 30 Sherwood Lane with imported clean soil.
- Deed Notices
 - Limit affected properties to non-residential use

Remedial Alternatives

- Alternative 1 – No Action
 - Retained in accordance with the NCP to serve as a baseline for comparison with the other alternatives.
 - Cost: \$0 / Estimated Time to Achieve RAOs: Does not achieve RAOs
- Alternative 2 – Excavation of Soils above 10 ppm PCBs to water table and Offsite Disposal, and In Situ Solidification/ Stabilization (ISS) and Capping of Remaining Soils above PRGs
 - Cost: \$14.3M / Estimated Time to Achieve RAOs: 1 year

Remedial Alternatives (cont.)

- Alternative 3 – In Situ Solidification/Stabilization and Capping of Soils above PRGs
 - Cost: \$6.4M / Estimated Time to Achieve RAOs: 1 year

- Alternative 4 – Excavation of Soils above PRGs and Offsite Disposal and Backfill the Excavated area with imported clean fill
 - Cost: \$18.1M/ Estimated Time to Achieve RAOs: 1.5 years

- Alternative 5 – Excavation and Onsite Treatment of Soils above PRGs with thermal desorption and backfill with treated soil and imported clean fill (if needed)
 - Cost: \$15.1M/ Estimated Time to Achieve RAOs: 2 years

Remedial Alternatives (cont.)

- Alternative 6 – Targeted Excavation of contaminated soils above the water table exceeding PRGs and Excavation of contaminated soils below the water table exceeding 10 times PRGs, Offsite Disposal and Backfill with imported clean fill
 - Cost: \$16.4M/ Estimated Time to Achieve RAOs: Would not achieve groundwater protection RAO

Technical Discussion Evaluation Criteria & Preferred Alternative

EPA's Evaluation Criteria

■ Threshold Criteria

1. Overall Protection of Human Health and the Environment
2. Compliance with Environmental Regulations

■ Primary Balancing Criteria

1. Long-Term Effectiveness and Permanence
2. Reduction of Toxicity, Mobility, or Volume Through Treatment
3. Short-Term Effectiveness
4. Implementability
5. Cost

■ Modifying Criteria

1. State Acceptance
2. Community Acceptance

EPA's Preferred Alternative

Alternative 4: Excavation of Soils above PRGs and Offsite Disposal

- Protects human health and the environment and provides the highest degree of long-term protectiveness and permanence.
- Complies with ARARs and achieve RAOs
- Provides the best balance of EPA's criteria

Submit Comments

- Trevor Anderson, Remedial Project Manager

USEPA

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- Comments must be submitted by August 22, 2016

Site Related Information

- Administrative Record

- Fairfield Municipal Building

- 230 Fairfield Road, Fairfield, NJ

- (973) 882-2700

- USEPA - Region II

- Superfund Record Center, 18th Floor

- 290 Broadway

- New York, NY 10007

- Web Site:

- www.epa.gov/region02/superfund/npl/unimatic/index.html

QUESTIONS/COMMENTS